Tab B Return on Investment Program Funding Application for FY 2013

Contact Information:

Funding to be requested (select only one):

___ IT Enterprise Solution project

_X_ Agency Specific IT project

Date: August 31, 2011
Agency Name: Department of Education
Project Name: Iowa School Interoperability System
Agency Manager: Jay Pennington
Agency Manager Phone Number / E-Mail: 515-281-4837/jay.pennington@iowa.gov
Executive Sponsor (Agency Director or Designee): Gail Sullivan

Amount of Funding Requested: ___$350,000_____

Section I: Project Description

The Iowa Department of Education (DE) and local school districts currently collect large quantities of data about schools and districts such as student records, demographics, enrollment, attendance, curriculum, and academic performance. Many of these data are required for state and federal reporting but can also be leveraged and used to systematically evaluate the outcomes of educational programs.

States across the nation are building repositories of education data coined Statewide Longitudinal Data Systems (SLDS). In 2009, Iowa received $8.8 million in grant funding from the United States Department of Education (USDE) to build an Iowa SLDS. The DE is in the midst of a multi-year project to build and expand its SLDS. The American Recovery and Reinvestment Act (ARRA) requires Iowa to further expand its SLDS in order to meet the assurances signed by the Governor and all superintendents that received funding though this program. Iowa is required to implement the 12 essential elements of an SLDS outlined in the America Competes Act. Lastly, SLDS are a key reform area of the Race to the Top program.

The vision of Iowa's SLDS is to provide the Iowa education community consistent and accurate longitudinal information on education outcomes and the analytical tools needed to improve decision making and student success. The goals are as follows: 1) Provide the education community a single repository of combined data from multiple sources on one common system; 2) Provide tools and training in the

use of data for benchmarking and longitudinal and comparative analysis; 3) Empower data driven decision making for education stakeholders; and 4) Increase confidence in data by defining and implementing processes to improve data consistency, reliability and quality.

In order to achieve the goals of Iowa's SLDS, the DE is implementing a School Interoperability Framework (SIF) system for the state. The goal of this project is to provide a common definition for education data and a transport mechanism to transmit information on Iowa students.

Education is facing a critical challenge in deploying technology due to the challenges raised by a lack of interoperability. Frequently, the applications available for primary and secondary (K-12) schools and their districts are either closed systems or systems that allow customer access only through proprietary interfaces and data formats. The lack of interoperability means:

- Applications and their data are isolated from one another
- Redundant data entry is common
- Disconnected applications increase support costs
- Data reporting is costly and inefficient
- Data are inaccessible to decision makers and can be inaccurate

The lack of interoperability also creates difficult decisions for district and state technology coordinators who procure administrative and management applications. Many coordinators experience an increase in technical support problems from maintaining numerous proprietary systems. Iowa's SIF project will assist both in building an infrastructure for sharing data, but also a cost savings for Iowa districts in reporting data and allowing multiple end systems to leverage the information reported. The goal of reporting once and using many times will assist in creating statewide cost efficiencies.

Section II: Expected Results

The Iowa SIF system will create cost efficiencies for the Department of Education, AEAs and school districts in the collection and reporting of required data. While the USDE grant provides a large amount of funding for the DE, the grant covers many deliverables and falls short in fully funding Iowa's SIF project. The SIF project is a core deliverable and prerequisite of a robust and efficient SLDS. The USDE grant only funds an Iowa SIF pilot and does not provide enough funding for a statewide SIF rollout.

Iowa's goals for the SIF project are as follows:

1. Build and pilot a SIF infrastructure.
2. Create efficiencies in the movement of education data between the multiple levels of the education system.
3. Build automation for movement of data including the following systems:

- Student Level Data Collection
- The Iowa Transcript Center and Student Record Exchange System
- Financial Reporting
- Staff Reporting
- State Student Identifier Assignment
- Iowa's Statewide Longitudinal Data System

If this Return on Investment (ROI) project were to be funded, it would help local schools, districts and the DE meet several federal and state mandates as well as provide needed outcome data about the education system. For example, as a condition of Iowa receiving the $386 million in education stimulus money (America Reinvestment and Recovery Act - ARRA) the DE, Governor's Office and all state superintendents agreed to meet the stipulations of an LDS in the America Competes Act: REQUIRED ELEMENTS OF A STATEWIDE P–16 EDUCATION DATA SYSTEM.—The State shall ensure that the statewide P–16 education data system includes the following elements:

> (i) PRESCHOOL THROUGH GRADE 12 EDUCATION AND POSTSECONDARY EDUCATION.—With respect to preschool through grade 12 education and postsecondary education—
>
> (I) a unique statewide student identifier that does not permit a student to be individually identified by users of the system;
>
> (II) student-level enrollment, demographic, and program participation information;
>
> (III) student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P–16 education programs;
>
> (IV) the capacity to communicate with higher education data systems; and
>
> (V) a State data audit system assessing data quality, validity, and reliability.
>
> (ii) PRESCHOOL THROUGH GRADE 12 EDUCATION.— With respect to preschool through grade 12 education—
>
> (I) yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b));
>
> (II) information on students not tested by grade and subject;
>
> (III) a teacher identifier system with the ability to match teachers to students;

(IV) student-level transcript information, including information on courses completed and grades earned; and

(V) student-level college readiness test scores.

(iii) POSTSECONDARY EDUCATION.—With respect to postsecondary education, data that provide—

(I) information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and

(II) other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

Section III: Financial Analysis

The most common reason for implementing a SIF system is leveraging data interoperability. In a 2006 study, the School Interoperability Framework Association found it too burdensome for IT staff to manage disparate software applications, multiple discrete data entry processes, and asynchronous, often inconsistent data. Moving to a SIF solution allowed for a single point of data entry, which saved time entering data as well as troubleshooting data errors. The SIF association predicts that when SIF is fully implemented, it could reduce data entry time by two thirds. Information technology staff and others who previously performed data entry will also have more time for other projects.

While some may choose to implement the SIF Specification to resolve data interoperability problems, it is important to note that others have successfully broadened the scope and benefits of the implementation to include data-driven decision making, optimization of funding opportunities, and more efficient business operations. This raises the importance of SIF to a new level and can have a dramatic impact.

The DE collects information from 351 school districts statewide including data on approximately 470,000 public school students. Data on these students are collected in Fall, Winter and Spring including multiple snapshots containing information such as: attendance, course enrollment, ACT scores, graduation status and discipline. This list is only a sample of the comprehensive information that is reported to the DE. If only a portion of time can be saved on reporting, cleaning and ensuring data quality it would create dramatic cost savings across the state.

The direct impact of Iowa's SIF system includes multiple levels of the education system including: DE staff, AEA staff, and District personnel. Indirectly this project will impact many other education stakeholders including groups such as teachers, legislators and the public. Creating efficiencies in the collection and reporting of education data would allow for a shorter turnaround time for generation of key

education metrics which are used to evaluate longitudinal trends and health of the system.

The DE would use the ROI funding to continue to build out its SIF system which would increases its ability to have a robust SLDS. The DE is building on its investment and would like to request additional funding to continue to carry this project forward. The DE will spend approximately $1.3 million in Fiscal Year 2012 to create a SIF system and complete a SIF pilot leveraging the investment made by the USDE. However, there are additional services and maintenance expenses needed in Fiscal Year 2013 and beyond.

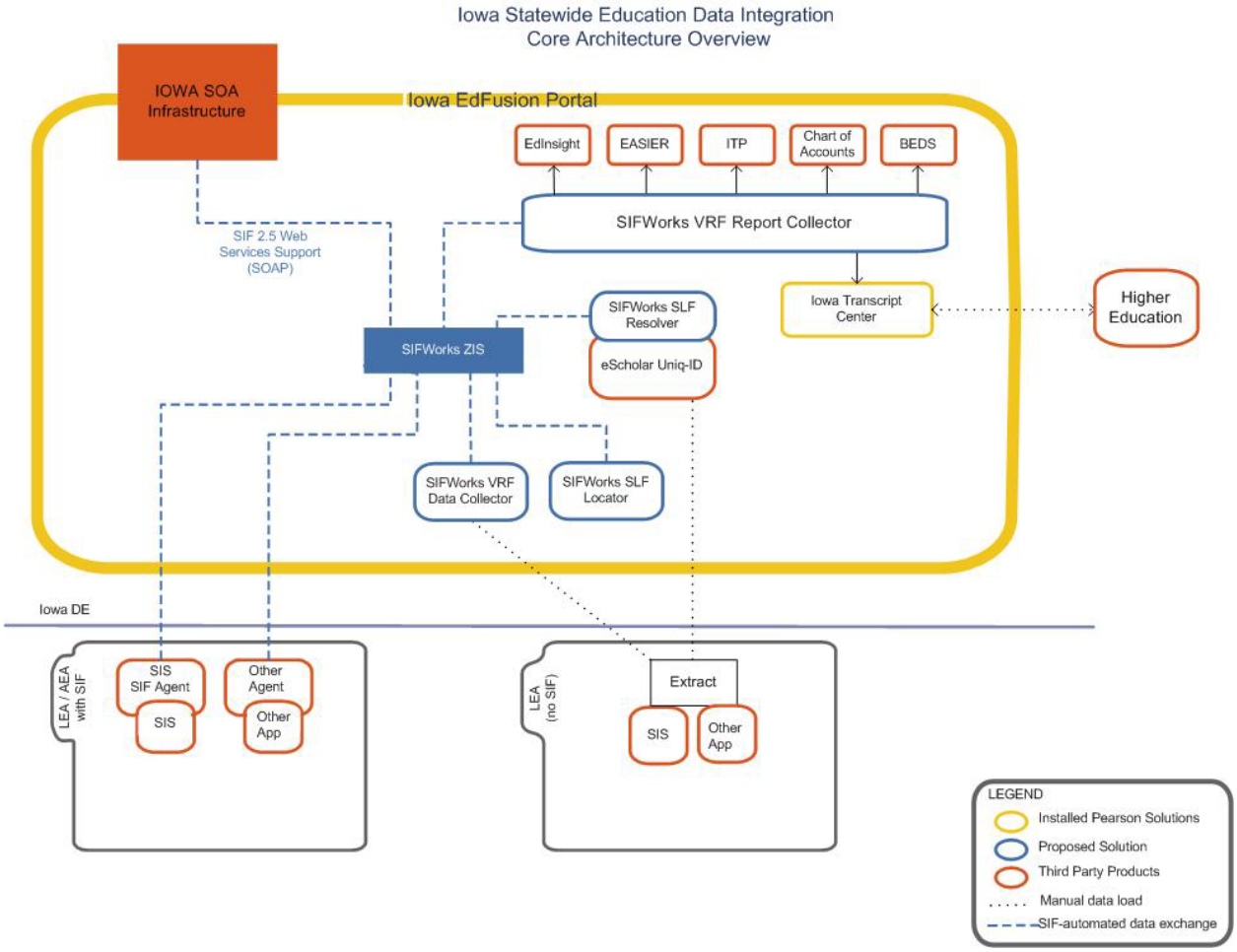
Specifically, funding from the ROI opportunity would be used in a two-pronged approach: 1) pay for SIF agent (software) installation for approximately 100 Iowa districts as they on board and are configured to send data via SIF; and 2) to purchase needed hardware for a statewide SIF implementation. The majority of the funding would go for services to Iowa districts ($300,000) with a smaller amount used for required hardware ($50,000). Iowa is requesting a total of $350,000 from the ROI technology fund.

Section IV: Auditable Outcome Measures

Category	Metric	Capture
Customer service/citizen impact	Amount of Data Sent and Received via SIF	Number of records captured and distributed using SIF
Source of funds	Complying with ARRA assurances	Ensuring the state meets its ARRA requirements
Source of funds	Federal contribution	Iowa leverages and extends the federal investment using ROI funding
Benefits	Data collected and reported in a timely manner	School districts complete reports on time measured pre and post implementation
Benefits	Federal EdFacts submissions completed on time	DE submits required reports on time measured pre and post implementation
Benefits	Provide Iowa Educators data on achievement	Number of reports run in Iowa's SLDS

Appendix

Iowa Statewide SIF System



Enclosure One, Financial Analysis Spreadsheet to Return on Investment (ROI) Program Funding Application					
Agency Name: Education					
Application Name: Iowa School Interoperabilty System					
Table One: Estimated Project Cost					
	FY13	FY14	FY15	FY16	FY17
Development and Implementation Costs	$470,000	$120,000	$0	$0	$0
Recuring Costs	$300,000	$300,000	$300,000	$300,000	$300,000
Total Costs	$770,000	$420,000	$300,000	$300,000	$300,000
Table Two: Percentage of Costs From					
General Fund	0%	0%	0%	0%	0%
Federal or other funding	55%	100%	100%	100%	100%
Pooled Technology Fund	45%				
Table Three: Projected Reduction in Expense					
For Requesting Agency	$350,000	$0	$0	$0	$0
For Other State Agencies	$0	$0	$0	$0	$0
TOTAL Cost Reductions	$350,000	$0	$0	$0	$0
Table Four: Calculated Estimated Return on Investment					
Total projected cost from table one	$770,000	$420,000	$300,000	$300,000	$300,000
Total projected cost reductions from table three	$350,000	$0	$0	$0	$0
Projected Net Benefit to the State of Iowa	-$420,000	-$420,000	-$300,000	-$300,000	-$300,000

9/13/2011

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